The seasonal movements of southern populations of Dull-coloured Grassquit Tiaris obscura obscura

by John M. Bates

Received 2 March 2005

Whittaker & Carlos (2004) presented new sight records of Dull-coloured Grassquit *Tiaris obscura obscura* in Mato Grosso, Brazil. These provide important additional evidence that this species occurs, more regularly than realised previously, in the general region bordering the Pantanal. The authors interpreted their observations as evidence that nominate *obscura* is 'an austral migrant to south-west Brazil', and that this is consistent with an earlier suggestion by Bates (1997). In fact, Bates (1997) proposed that nominate *obscura* is a migrant from the Andes into the lowlands, with movements in an west/east rather than south/north direction. Such a pattern would not constitute austral migration, which has been defined as the seasonal movement of populations latitudinally (Chesser 1994). Here, I review in greater detail the evidence for elevational migration in *T. o. obscura* and suggest that such movements may occur in other species. Documenting such movements will require year-round censuses or sampling at localities, which is still rarely accomplished along the Andes.

Bates (1997) examined 38 specimens of T. o. obscura, the southernmost populations of Dull-coloured Grassquit, a species that occurs primarily in the Andes from Venezuela to northern Argentina. Specimens from sites in the Bolivian and northern Argentine Andes (generally above 800 m, N=4 males, 11 females, 1 unknown) have been collected in January-February. These include specimens in breeding condition. In contrast, all specimens (12 males, 9 females, 1 unknown) from eastern Bolivia (below 800 m), western Brazil, Paraguay and northern Argentina are from May-October, the austral winter. None of these specimens that have accompanying information on gonadal development are in breeding condition (e.g. Davis 1993). Other records are consistent with this pattern. Sight records from Paraguay (Bates 1997) and those of Whittaker & Carlos (2004) are also from the austral winter (their 8 March date is notably early). Schmitt et al. (1997) recorded the species as common (and collected birds in breeding condition) in January-February at Tambo (1,500 m), in the Andean foothills of Santa Cruz, Bolivia, but found obscura absent at this locality in June–July. Within T. obscura, this pattern of movement appears restricted to T. o. obscura, as specimens representing populations from a spectrum of elevations in northern Bolivia, Peru and Ecuador (all representative of populations north of T. o. obscura) did not show any clear pattern of annual movements, austral or elevational (Bates 1997).

Austral migration has been long recognised and recently this pattern has received much attention from ornithologists (e.g., Marantz & Remsen 1991,

Chesser 1994, 1997, Joseph 1996, 1997, Joseph et al. 2003). Some austral migrants do breed at higher elevations and migrate in the non-breeding season to lowlands (Chesser 1997, 2005). For example, Chesser (1997) documented seasonal differences in the elevations of three austral migrant flycatchers in Bolivia (Phaeomyias murina, Pseudocolopteryx acutipennis and Myiophobus fasciatus). However, elevational migration without an apparent latitudinal component appears to be rarely reported from Andean countries, in contrast to Middle America where elevational movements are well documented (e.g. Binford 1989, Loiselle & Blake 1991), and it has been suggested that these might be an evolutionary precursor to latitudinal migration (Levey & Stiles 1992). As mentioned earlier, such movements could be more widespread in the Andes than currently realised, and the lack of documentation reflects a paucity of localities monitored on a year-round basis. For example, Schmitt et al. (1997) found that several other species (e.g. Phaethornis pretrei and Thraupis bonariensis) exhibited marked changes in abundance between the breeding (austral summer) and non-breeding (austral winter) seasons. Further north, some Sporophila seedeaters may migrate from the Andes to Amazonia, as suggested for S. luctuosa by Ridgely & Greenfield (2001), which also may account for February records in Acre, Brazil (Whittaker & Oren 1999). Researchers working in these regions should be aware of the possibility that such movements may occur in other species and other Andean regions.

Acknowledgements

R. T. Chesser, J. V. Remsen, T. Schulenberg and D. Willard commented on the manuscript. The specimens examined came from the American Museum of Natural History (New York), National Museum of Natural History (Washington DC), Carnegie Museum of Natural History (Pittsburgh), Field Museum of Natural History (Chicago) and Louisiana State University Museum of Natural Science (Baton Rouge). I thank the curators and collection managers of these collections for access to material in their care.

References:

- Bates, J. M. 1997. Distribution and geographic variation in three South American grassquits (Emberizinae, *Tiaris*). Pp. 91–110 in Remsen, J. V. (ed.) Studies in Neotropical ornithology honoring Ted Parker. Orn. Monogr. 48.
- Binford, L. C. 1989. A distributional survey of the birds of the Mexican state of Oaxaca. Orn. Monogr. 43.
- Chesser, R. T. 1994. Migration in South America: an overview of the austral system. *Bird Conserv. Intern.* 4: 91–107.
- Chesser, R. T. 1997. Patterns of seasonal and geographical distribution of austral migrant flycatchers (Tyrannidae) in Bolivia. Pp. 171–204 in Remsen, J. V. (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Orn. Monogr. 48.
- Chesser, R. T. 2005. Seasonal distribution and ecology of South American austral migrant flycatchers. Pp. 168–181 in Greenberg, R. & Marra, P. P. (eds.) Birds of two worlds: the ecology and evolution of migration. Johns Hopkins Univ. Press, Baltimore.
- Davis, S. E. 1993. Seasonal status, relative abundance, and behavior of the birds of Concepción, Departamento Santa Cruz, Bolivia. Fieldiana, Zool. 71.
- Joseph, L. 1996. Preliminary climatic overview of migration patterns is South American migrant passerines. *Ecotropica* 2: 185–193.

- Joseph, L. 1997. Towards a broader view of Neotropical migrants: consequences of a re-examination of austral migration. *Orn. Neotrop.* 8: 31–36.
- Joseph, L. Wilke, T. & Alpers, D. 2003. Independent evolution of migration on the South American landscape in a long-distance temperate-tropical migratory bird, Swainson's Flycatcher (Myiarchus swainsoni). J. Biogeogr. 30: 925–937.
- Levey, D. J. & Stiles, F. G. 1992. Evolutionary precursors of long distance migration: resource availability and movement patterns of Neotropical landbirds. *Amer. Nat.* 140: 447–476.
- Louiselle, B. A. & Blake, J. G. 1991. Temporal variation in birds and fruits along an elevational gradient in Costa Rica. *Ecology* 72: 180–193.
- Marantz, C. A. & Remsen, J. V. 1991. Seasonal distribution of the Slaty Elaenia (*Elaenia strepera*), a little-known austral migrant of South America. *J. Field Orn.* 62: 162–172.
- Ridgely, R. S. & Greenfield, P. J. 2001. The birds of Ecuador. Cornell Univ. Press, Ithaca. NY.
- Schmitt, C. G., Schmitt, D. C. & Remsen, J. V. 1997. Birds of the Tambo area, an arid valley in the Bolivian Andes. Pp. 701–716 in Remsen, J. V. (ed.) Studies in Neotropical ornithology honoring Ted Parker. Orn. Monogr. 48.
- Whittaker, A. & Oren, D. C. 1999. Important ornithological records from the Rio Juruá, western Amazonia, including 12 additions to the Brazilian avifauna. *Bull. Br. Orn. Cl.* 119: 235–260.
- Whittaker, A. & Carlos. B. 2004. Recent observations of Dull-coloured Grassquit *Tiaris obscura* in Mato Grosso reinforce its status as an austral migrant to south-west Brazil. *Bull. Brit. Orn. Cl.* 124: 285–286.
- Address: Department of Zoology, The Field Museum, 1400 S. Lakeshore Drive, Chicago, IL 60605, USA, e-mail: jbates@fieldmuseum.org

© British Ornithologists' Club 2006

Great-winged Petrel Pterodroma macroptera in Brazil

by Leandro Bugoni

Received 14 March 2005

Great-winged Petrel *Pterodroma macroptera* has a near-circumpolar distribution in temperate waters of the Southern Hemisphere (Harrison 1983, Marchant & Higgins 1990). Its population is *c*.420,000 individuals (BirdLife International 2004), with *P. m. macroptera* breeding on Tristan da Cunha, Gough, Crozet, Marion, Prince Edward and Kerguelen islands, and off south-west Australia; and Grey-faced Petrel *P. m. gouldi* on mainland cliffs and offshore islands of North Island, New Zealand (Harrison 1983, Marchant & Higgins 1990). Tristan da Cunha birds appear to migrate to African waters for the non-breeding period, where Camphuysen & van der Meer (2000) found the species to be one of the most numerous off the Namibian shelf, in February 2000. The continental shelf of South America was not mentioned as being part of the species' non-breeding range (Harrison 1983), but there are scattered records for the Argentine Economic Exclusive Zone, the Falklands and South Georgia (see Mazar Barnett & Pearman 2001).